

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

1. (Currently amended) A method, ~~including steps of~~ comprising:

creating at least one snapshot for each mirrored file system volume of a plurality of file system volumes;

including a consistency point value in said at least one snapshot indicating a sequence in which said at least one snapshot was generated;

examining the plurality of mirrored file system volumes for consistency point values; and

determining a most up-to-date said file system volume based on the consistency point values.

2. (Previously presented) A method as in claim 1, further comprising:

determining a snapshot held in common between said most up-to-date said file system volume and at least one other mirrored file system volume of said plurality of mirrored file system volumes; and

selecting those file blocks changed between said snapshot held in common and said most up-to-date said file system volume.

3. (Currently amended) A method as in claim 2, ~~including steps of~~ further comprising re-synchronizing said at least one other mirrored file system volume of said plurality of

mirrored file system volumes with said most up-to-date said file system volume in response to said steps of selecting.

4. (Currently amended) ~~Apparatus including~~An apparatus comprising:

a plurality of mirrored file system volumes, each having at least one snapshot including an entire consistent file system, each said snapshot having a consistency point value indicating a sequence in which each said snapshot was generated;

a first comparison element capable of being coupled to a plurality of said consistency point values and capable of determining a most up-to-date mirrored file system volume of the plurality of mirrored file system volumes based on the consistency point values; and

a second comparison element, responsive to an output of said first comparison element, said second comparison element being capable of being coupled (a) to a first snapshot associated with said most up-to-date mirrored file system volume and (b) to a second snapshot associated with a second said volume, said second comparison element being capable of providing a selection of file blocks that differ between said second volume and said most up-to-date mirrored file system volume.

5. (Currently amended) An apparatus ~~Apparatus~~ as in claim 4, wherein said second snapshot is held in common between said most up-to-date mirrored file system volume and said second volume.

6. (Currently amended) An apparatus ~~Apparatus~~ as in claim 4 or 5, including comprising an element capable of re-synchronizing said second volume in response to said second comparison element.
7. (Currently amended) An apparatus ~~Apparatus~~ as in claim 6, further comprising a network interface capable of receiving messages requesting that the data of the mirrored file system volumes be altered.
8. (Currently amended) An apparatus ~~Apparatus~~ as in claim 6, further comprising an element capable of including the consistency point value of each said snapshot in each said snapshot.
9. (Currently amended) An apparatus ~~Apparatus~~ as in claim 4, wherein the first comparison element determines said most up-to-date mirrored file system volume by determining a mirrored file system volume with an extreme consistency point value.
10. (Currently amended) An apparatus ~~Apparatus~~ as in claim 4, wherein the first comparison element determines the most up-to-date mirrored file system volume by determining a mirrored file system volume with the highest consistency point value.
11. (Currently amended) An apparatus ~~Apparatus~~ as in claim 10, further comprising an element capable of generating a new snapshot from said mirrored file system volume with the highest consistency point value.

12. (Currently amended) ~~An apparatus~~ An apparatus as in claim 4, further comprising a re-synchronization element capable of copying the selected file blocks from said most up-to-date mirrored file system volume to said second volume.

13. (Currently amended) ~~An apparatus~~ An apparatus as in claim 4, wherein said file system volumes include a RAID subsystem.

14. (Currently amended) ~~An apparatus~~ An apparatus as in claim 4, wherein said file system volumes include volumes for parallel stored systems.

15. (Currently amended) ~~Apparatus for maintaining~~ An apparatus to maintain a plurality of mirrored file system volumes, the apparatus comprising:

a first element capable of creating at least one snapshot for each mirrored file system volume of the plurality of mirrored file system volumes and including a consistency point value in said at least one snapshot indicating a sequence in which said at least one snapshot was generated;

a second element capable of examining the snapshots of the plurality of mirrored file system volumes for consistency point values; and

a third element capable of determining a most up-to-date said file system volume based on the consistency point values.

16. (Previously presented) A method as in claim 1, wherein the step of determining a most up-to-date said file system volume comprises determining the highest consistency point value.

17. (Previously presented) A method as in claim 2, further comprising generating a new snapshot of said most up-to-date said file system volume.

18. (Previously presented) A method as in claim 3, wherein the step of re-synchronizing comprises copying the file blocks changed between said snapshot held in common and said most up-to-date said file system volume from said most up-to-date said file system volume to said at least one other mirrored file system volume.

19. (Currently amended) A computer program product comprising program code ~~means~~ that, when executed on a computer system, causes the computer system to effect the steps of any one of claims 1, 2, 3, 16, 17, ~~or~~ and 18.